

# CHANGE

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

1100.2C CHG 5

9/19/89

SUBJ: ORGANIZATION — FAA HEADQUARTERS

1. **PURPOSE.** This change transmits revised pages to Chapter 40, Associate Administrator for Policy, Planning, and International Aviation, Chapter 42, Office of Environment, and Chapter 74, Operations Research Office.

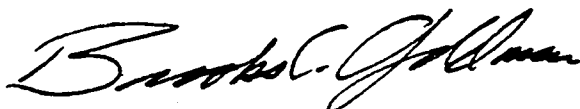
2. **EXPLANATION OF CHANGES.** This change:

- a. Retitles the Office of Environment as the Office of Environment and Energy.
- b. Transfers the energy conservation function from the Operations Research Office to the Office of Environment and Energy. The Operations Research Office retains responsibility for the operational implementation of the energy-related programs.
- c. Establishes a Hazardous Materials and Special Projects Staff in the Office of Environment and Energy. This staff administers the FAA program for ensuring agency compliance with pollution control of chemical and toxic wastes generated from past and present FAA operations.

3. **DISPOSITION OF TRANSMITTAL.** After filing the revised pages, this change transmittal should be retained.

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Associate Administrator  
for Administration



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## **CHAPTER 1. GENERAL**



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## CHAPTER 40. ASSOCIATE ADMINISTRATOR FOR POLICY, PLANNING, AND INTERNATIONAL AVIATION

**40-1. MISSION.** The Associate Administrator for Policy, Planning, and International Aviation advises and assists the Executive Director for Policy, Plans, and Resource Management and the Administrator in directing, coordinating, controlling, and ensuring the adequacy of national and international aviation system policies, goals, and priorities.

**40-2. ORGANIZATIONAL STRUCTURE.** The organizational structure for the Associate Administrator for Policy, Planning, and International Aviation is shown in figure 1-1. The Associate Administrator for Policy, Planning, and International Aviation exercises executive direction over the following elements of FAA:

- a. Office of Aviation Policy and Plans.
- b. Office of Environment and Energy.
- c. Office of International Aviation.
- d. Europe, Africa, and Middle East Office.

### 40-3. FUNCTIONS.

The Associate Administrator for Policy, Planning, and International Aviation;

- a. Develops and recommends national aviation policy relating to environmental, energy programs and hazardous materials regulatory matters.
- b. Develops and recommends long-range systemwide master plans and aviation system concepts.
- c. Coordinates and integrates the FAA strategic planning efforts.
- d. Develops, coordinates, recommends, and promulgates statements of FAA policy, goals, and priorities (both short- and long-range) and related achievement indicators.
- e. Ensures the continuous coordination of such policies, goals, and overall plans with the Office of the Secretary of Transportation.
- f. Provides the focal point for aviation public and Government participation in policy development and planning processes.
- g. Identifies future demands for aviation services, forecasting aviation technology, and future operational environments.
- h. Reviews and analyzes proposed FAA actions which significantly have an impact on the national aviation system to identify the social, economic, or other consequences which are associated with FAA regulatory actions and other actions and to ensure consideration of all feasible alternative FAA policies and plans.

tem to identify the social, economic, or other consequences which are associated with FAA regulatory actions and other actions and to ensure consideration of all feasible alternative FAA policies and plans.

i. Ensures continuous and effective liaison with foreign governments and the adequacy of programs and operating policies of the Europe, Africa, and Middle East Office within its assigned geographic jurisdiction.

**40-4. AUTHORITY.** With respect to all matters within the associate administrator's sphere of responsibility, the Associate Administrator for Policy, Planning, and International Aviation is authorized to:

a. Take action and issue orders in the name of the Administrator and the Executive Director for Policy, Plans, and Resource Management, except for those matters for which the Administrator and/or executive director has specifically reserved authority or otherwise provided.

b. Represent the Executive Director for Policy, Plans, and Resource Management.

c. Act on any matter for which specific delegation of authority has been made to the associate administrator or to any element under the associate administrator's executive direction.

d. Approve employee claims for foreign allowance.

### 40-5. RESERVED.

### 40-6. SPECIAL RELATIONS.

a. The Associate Administrator for Policy, Planning, and International Aviation is responsible for coordinating, but not dictating, agency policy and planning development so that operations and development activities are directed toward common goals and in accordance with approved priorities. All operational and development programs and activities are to be consistent with approved FAA policies, goals, and priorities. Program and operational policy activities initiated from within the offices and services under other executive directors/associate administrators which will alter existing FAA policy, plans, and/or priorities shall be coordinated prior to their promulgation with the Associate Administrator for Policy, Planning, and International Aviation through the associate administrator concerned; such activities shall be included within official FAA planning documents prepared under the cognizance of the Associate Administrator for Policy, Planning, and International Aviation.

b. The Associate Administrator for Policy, Planning, and International Aviation is responsible for directing and conducting the FAA's continuing consultative planning process with the users of the National Aviation System, consumers of FAA provided services, and the aviation public; and for ensuring that their views and needs are considered in the formulation of ongoing FAA policy, goals, and priorities. Each executive director and associate administrator is responsible for timely and effective participation in the process of all matters under the associate's jurisdiction, and for subsequent and continuing integration of user views and needs into the program content, as determined to be appropriate.

c. The Associate Administrator for Policy, Planning, and International Aviation is responsible for a continuing assessment on behalf of the Administrator and the Executive Director for Policy, Plans, and Resource Management to ensure that planned systems, facilities, and services are responsive, insofar as possible, to expressed needs of users and demands forecast, and take into account cost versus benefit analyses and the willingness and capability of users to pay.

**40-7. PROGRAM MANAGEMENT STAFF.** The staff supports the Associate Administrator for Policy, Planning, and International Aviation, the Office of Aviation Policy and Plans, the Office of Environment and Energy, the Office of International Aviation, and the Europe, Africa, and Middle East Office in the:

a. Development and administration of systems and procedures to facilitate the management and control of the program.

b. Appraisal of the quality and effectiveness of FAA policy development and planning; and the review and assessment of compliance with, and the adequacy of, stated objectives, programs, policies, and standards; and the accomplishment of goals and objectives.

c. Provision of administrative management support and leadership for the associate administrator and offices reporting to the associate administrator in:

(1) Personnel management and training.

(2) Budget and financial management (direct and reimbursable).

(3) Maintenance of project control records.

(4) Paperwork management.

(5) Security.

(6) General administrative service coordination.

(7) Emergency operations.

(8) Travel and transportation.

(9) Liaison with the Department of State on NSDD-38 approvals.

(10) Aviation insurance investments.

(11) API automated MIS system.

d. Provision of program guidance and coordination for regional planning staffs for calls for estimates, career planning, organization, and communications, including Washington and regional conferences.

e. Formulation of management and administrative policies and procedures affecting international programs and agreements of the agency.

f. Liaison and coordination with other U.S. and foreign agencies and international organizations and the clearance and authorization with respect to foregoing functions when required.



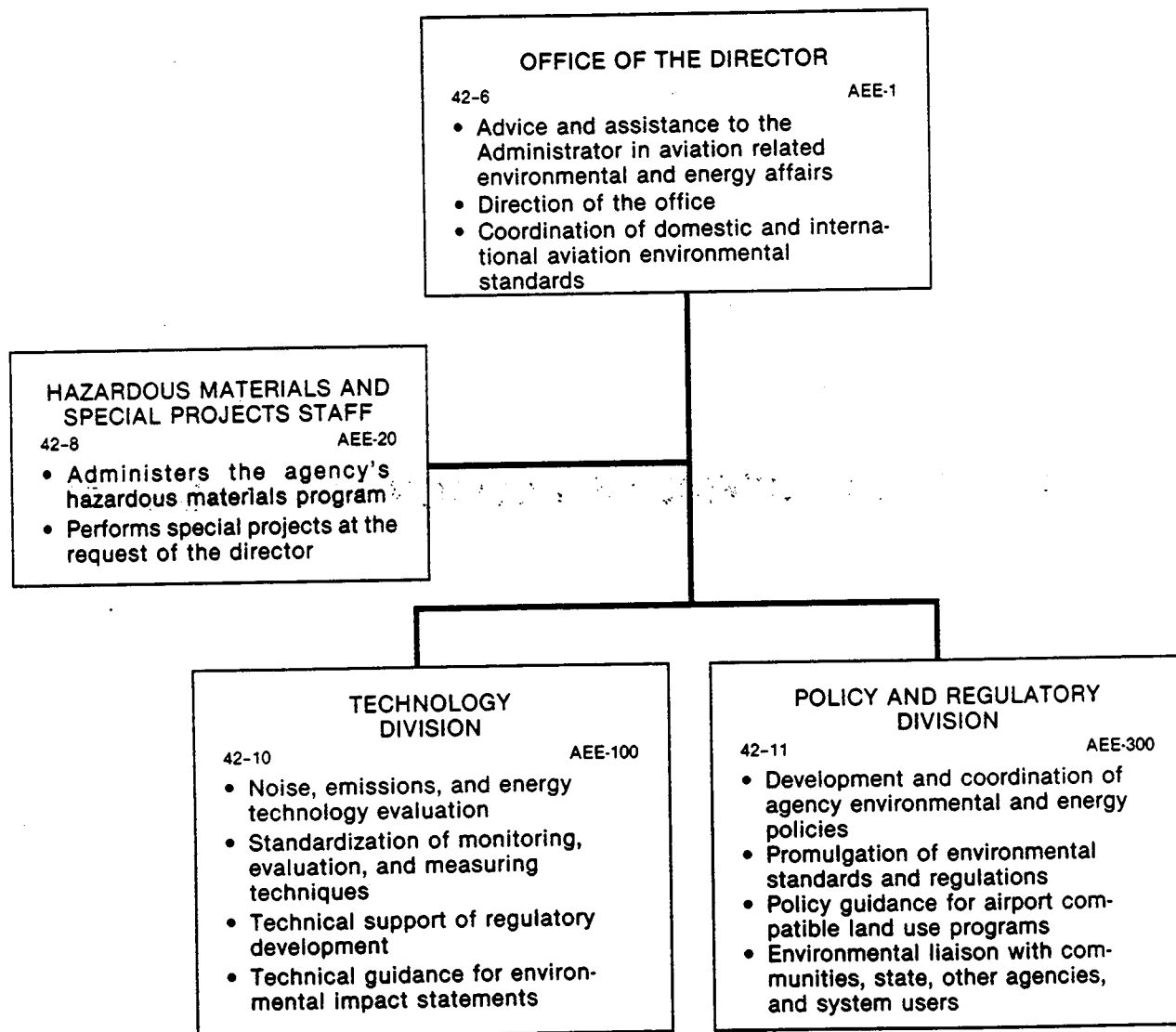
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## **I      CHAPTER 42. OFFICE OF ENVIRONMENT AND ENERGY**

FIGURE 42-1. FUNCTIONAL ORGANIZATIONAL CHART

## OFFICE OF ENVIRONMENT AND ENERGY



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## CHAPTER 42. OFFICE OF ENVIRONMENT AND ENERGY

**42-1. MISSION.** The Office of Environment and Energy develops, recommends, and coordinates national aviation policy relating to environmental and energy matters. Provides instructions, guidance, and technical assistance for FAA compliance with applicable environmental and energy statutes and regulations prescribing Federal environmental protection and energy conservation policies. Formulates and implements technical programs leading to reduced aircraft noise and exhaust emissions and to improved environmental conditions around airports. Develops, recommends, and promulgates regulations and standards, as appropriate to meet statutory requirements or Departmental and agency policy. Conducts analyses and studies of aircraft and airport operations and development programs which could lead to the reduction of any adverse impact on the environment while maintaining the efficiency and capacity of the National Airspace System; coordinates with other Federal agencies in developing aviation-related environmental and energy policies, goals, and priorities; and provides the agency focal point for coordinating and fostering community, State, local, and general public participation in the resolution of aviation-related environmental and energy matters.

**42-2. FUNCTIONAL ORGANIZATION.** The functional organization of the Office of Environment and Energy is shown in figure 42-1.

**42-3. FUNCTIONS.** The office is responsible for:

- a. Developing and recommending national aviation policies and strategies in environmental and energy matters.
- b. Coordinating and managing FAA-wide actions and activities in support of national environmental quality and energy conservation statutes, policies, goals, priorities, processes, and other requirements.
- c. Formulating requirements for research and development programs to advance the state-of-the-art in environmental quality and efficient energy use and to support FAA's program in these fields; coordinating these requirements and resulting plans with NASA, HUD, HEW, DOC, DOD, DOE, DOS, EPA, NSF, and other interested agencies.
- d. Developing and coordinating aircraft noise and engine emission national standards for application as aircraft certification criteria and implementing the engine emission national standards.
- e. Evaluating and assessing all proposed new and amended national standards for aircraft noise, air quality, and other environmental parameters affecting publicly owned airports and surrounding communities.

f. Evaluating alternative aircraft operating procedures, including those proposed as part of airport planning and development or of long-range programs to reduce adverse impacts upon the environment.

g. Coordinating agency environmental programs within the Department, with EPA, DOD, NASA, CEQ, DOE, and other involved Federal agencies.

h. Supporting and encouraging community, State, local, and general public involvement and participation in the resolution of aviation environmental protection and energy conservation matters.

i. Representing in domestic and international activities and committees concerned with environmental protection and energy conservation matters or the development of national or international standards relating to the measurement or regulation of aircraft noise or engine emissions.

j. Conducting special issue studies and analyses relating to aviation-related environmental protection and energy matters.

k. Developing methodologies and data bases for the conduct of environmental assessments of aviation noise and emission impacts.

l. Serving as the agency focal point for agency pollution control plans and for chemical and hazardous wastes, radiation hazards, and other forms of air, water, or soil pollution.

m. Establishing policy and procedures and administering the agency's program to ensure agency compliance with pollution control of chemical and toxic wastes generated from past and present FAA operations.

**42-4. RESERVED.**

**42-5. SPECIAL RELATIONS.**

a. With the Associate Administrator for Air Traffic, the Aircraft Certification Service, and the Flight Standards Service. The Office of Environment and Energy uses the expertise of, and closely coordinates all activities relating to the development and implementation of operational procedures for noise abatement and energy conservation with the Associate Administrator for Air Traffic and the Flight Standards Service, which also participate in the conduct of noise abatement flight tests and sonic boom flight programs. The Office of Environment and Energy also provides technical support to both the Aircraft Certification Service and Flight Standards Service with respect to the implementation of noise certification, sonic boom, engine emission certification, and other aviation-related environmental regulations.

b. With the Associate Administrator for Airway Facilities. The Office of Environment and Energy administers the hazardous materials program in close coordination with the Associate Administrator for Airway Facilities whose personnel implement the program in the field. The Office of Environment and Energy also performs the extensive coordination with all concerned headquarters offices and maintains liaison with the Environmental Protection Agency. The Office of Environment and Energy also provides technical support to the field personnel in their general environmental responsibilities.

c. With the Office of Airport Planning and Programming. The Office of Environment and Energy develops policy, issues procedural guidance, and provides technical assistance to the Office of Airport Planning and Programming in environmental protection matters; including, but not necessarily limited to, the preparation and processing of Environmental Impact Statements and other environmental documents pertaining to airport development actions, noise and air quality measurement technology, and land use planning of areas adjacent to airports.

d. With the Office of International Aviation. The Office of Environment and Energy coordinates with the Office of International Aviation on environmental matters concerning international civil aviation. The Office of International Aviation continuously monitors international environment matters and in a timely fashion alerts the Office of Environment and Energy as to their likely implications.

e. With the Office of Aviation Policy and Plans. The Office of Environment and Energy coordinates proposed requirements for economic studies, analyses, and aviation forecasts and proposed environmental conservation planning requirements in support of its programs with the Office of Aviation Policy and Plans.

f. With the Office of the Chief Counsel. The Office of Environment and Energy consults and coordinates with the Office of the Chief Counsel in the interpretation of environmental legislation and orders. The Office of Environment and Energy is responsible for ensuring the technical adequacy of Environmental Impact Statements prepared and processed by the agency; the Office of the Chief Counsel is responsible for determining their legal sufficiency under law.

g. With All Elements. The Office of Environment and Energy enlists the participation and assistance of offices, services, and regions, to the greatest extent practicable, in carrying out the mission of the office. The Office of Environment and Energy provides technical support, as required, to other elements of FAA needing to fulfill their environmental analysis responsibilities. This support is generally in the measurement, evaluation, and interpreta-

tion of environmental impacts of current and proposed activities.

**42-6. OFFICE OF THE DIRECTOR.** The Office of the Director:

a. Advises and assists the Associate Administrator for Policy, Planning, and International Aviation on matters under the purview of the Office of Environment and Energy in the justification of budget estimates, the administration of executive decisions, and the maintenance of productive relationships with the public, the aviation community, and other Government agencies.

b. Under the direction of the Associate Administrator for Policy, Planning, and International Aviation, advises and assists the Administrator on environmental issues, policies, and agency responsibilities.

c. Provides for the development and coordination and is accountable to the associate administrator for the adequacy of:

(1) FAA environmental and energy standards and regulations.

(2) Environmental policies, plans, guidance, procedures, and practices.

(3) Planning of FAA activities for improvement of environmental quality in all facets of the agency's operations.

d. Provides for effective evaluation of program performance and ensures the adequacy of follow-up to assure correction of deficiencies.

e. Assures that all elements of the Office of Environment and Energy participate constructively in FAA equal employment opportunity plans and programs.

f. Provides leadership and direction in the planning, management, and control of office activities.

**42-7. RESERVED.**

**42-8. HAZARDOUS MATERIALS AND SPECIAL PROJECTS STAFF.**

a. The Hazardous Materials and Special Projects Staff is responsible for administering the FAA program for ensuring agency compliance with pollution control of chemical and toxic wastes generated from past and present FAA operations as required by several laws and Executive orders. The Hazardous Materials and Special Projects Staff is also responsible for performing special projects concerning a wide range of environmental problems at the request of the director.

b. With respect to the foregoing, the staff:

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(1) Formulates and pursues technical programs to help minimize the generation of hazardous substances at FAA facilities.

(2) Develops policy documents ensuring agency compliance with existing environmental statutes and the environmental regulations established by the Environmental Protection Agency (EPA), and State and local environmental authorities.

(3) Develops audits and surveys to identify existing or future potential environmental pollution problems.

(4) Performs all necessary budget and fiscal activities to support the hazardous materials program.

(5) Represents AEE and/or FAA at interagency, intergovernmental, industry, and public meetings and forums in areas of responsibilities.

(6) Maintains inventories and prerequisite data for dissemination to regulatory authorities.

(7) Monitors and ensures regional and center compliance with regulations and program orders.

c. Compliance and enforcement of the air transportation of hazardous materials regulations contained in Order 1650.9A, Transportation of Hazardous Materials, remain with the Office of Civil Aviation Security.

#### 42-9. RESERVED.

#### 42-10. TECHNOLOGY DIVISION.

a. The Technology Division is responsible for the measurement and prediction of aviation noise and sonic boom, atmospheric pollution from aircraft, and chemical and toxic wastes from agency facilities; for conducting operational noise and emissions monitoring; for measurement and technical evaluation of new and proposed aircraft or engine types, operational procedures, and aircraft layouts; and for providing an agency focal point for technical and engineering studies into both the environmental effects of aviation and the agency's energy efficiency efforts.

b. With respect to the foregoing, the division:

(1) Formulates and pursues technical programs to advance the state of the art in aviation noise abatement, air quality, and energy conservation ensuring the development of research and special studies in support of agency and statutory goals.

(2) Provides the technical, engineering, economic, and analytical bases for implementing standards for aviation environmental and energy protection, including the development of state-of-the-art aircraft noise and emission evaluations.

(3) Reviews established and recommended aircraft environmental standards for technological practicability and safety.

(4) Develops and recommends technical methods for the measurements, correction, and analysis of aircraft noise and emissions from individual aircraft and from cumulative impacts in or around airports.

(5) Studies, evaluates, and reports on the use of aircraft operating techniques as means for alleviating adverse noise or emissions impacts.

(6) Develops specifications and guidance for the application of airport noise and air quality monitoring systems and recommends techniques for interface with airport communities and public officials.

(7) Conducts studies and analyses in specialized areas which require the application of acoustics and noise control technology and their relation to community response.

(8) Maintains technical liaison with industry, scientific groups, NASA, EPA, and other agencies to ensure responsiveness to and compatibility with other ongoing aircraft noise research efforts and national energy conservation efforts.

(9) Represents the FAA in domestic and international activities concerned with measurement of aviation environmental and energy impacts.

(10) Conducts studies to monitor and measure aircraft emissions and their impact on air quality and other aspects of the environment.

(11) Determines energy impacts of emerging technologies.

(12) Develops energy-use assessment measures.

(13) Develops, maintains, and updates airport and aircraft air quality evaluation methods to evaluate the conformity of airport development projects with State and Federal laws. Provides guidance in the application of such evaluation methods to specific airport scenarios.

(14) Conducts studies concerning the aircraft cabin environment, including radiation and ozone hazards, and provides the FAA focal point for all such measurement activities.

(15) Provides technical support in the development of agency orders and guidance in the storage and disposal of chemical and toxic waste from FAA facilities and operation.

(16) Provides technical support of the agency response to unusual environmental problems, such as

radioactive or volcanic ash clouds, aircraft effluents, and fuel dumping.

(17) Monitors and evaluates programs of other Federal agencies concerning high altitude pollution to assure that aviation interests are adequately considered in connection with proposed solutions to control pollution in the stratosphere due to emissions.

#### 42-11. RESERVED.

#### 42-12. POLICY AND REGULATORY DIVISION.

a. The Policy and Regulatory Division is responsible for providing policy recommendations and advice on environmental and energy conservation matters within the purview of the office; for the development of aviation environmental noise and emissions standards; for formulating long-range objectives and priorities for research and development in aviation environmental and energy conservation areas, including aircraft noise and sonic boom and air pollution from aircraft and aircraft engines; and for providing a focal point for environmental planning and issues affecting aviation.

b. With respect to the foregoing, the division:

(1) Develops and recommends environmental and energy conservation policies, goals, and priorities.

(2) Develops, recommends, and promulgates regulations establishing national aircraft noise standards.

(3) Develops, recommends, and promulgates regulatory actions to assure that aircraft engine emissions comply with established standards; prepares regulations to ensure compliance with all standards established by the EPA to control air pollution in the stratosphere and to safeguard the environment.

(4) Identifies needs and recommends programs and special studies to advance state of the art in aviation environmental protection and energy conservation.

(5) Represents FAA in domestic activities concerned with setting standards for limiting and controlling aviation environmental impacts.

(6) Acts as focal point in evaluations of airport proprietor use restrictions and land use planning for environmental purposes.

(7) Develops and coordinates agency orders and advisory notices consistent with the national objectives expressed in the National Environmental Policy Act and applicable energy conservation laws and executive orders.

(8) Provides balance between energy conservation and environmental protection actions.

(9) Coordinates the efforts of all FAA organizations to ensure effective and timely missions accomplishment, including policy preparation and recommendation.

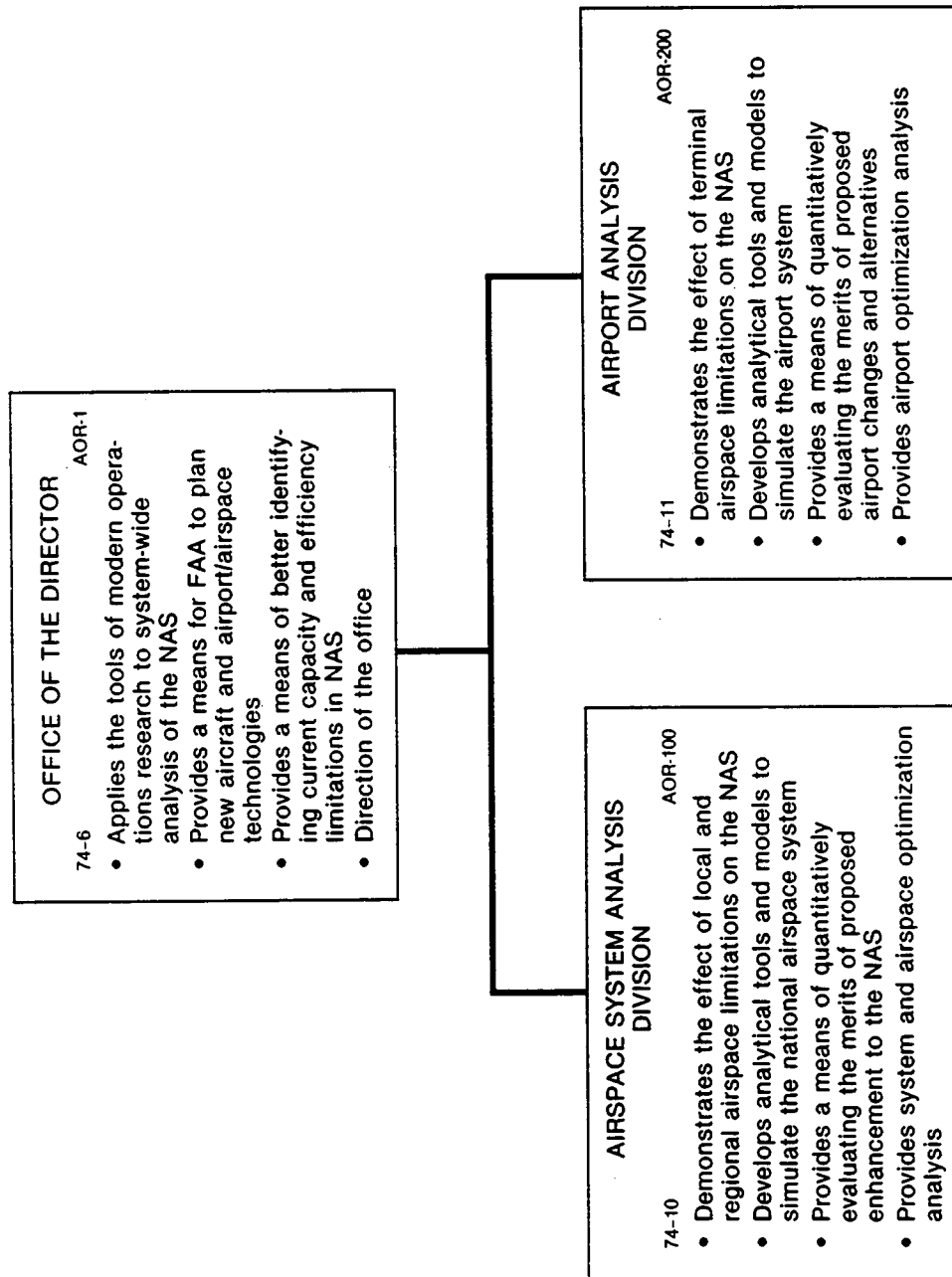
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## **CHAPTER 74. OPERATIONS RESEARCH OFFICE**

FIGURE 74-1. FUNCTIONAL ORGANIZATIONAL CHART

# OPERATIONS RESEARCH OFFICE





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## CHAPTER 74. OPERATIONS RESEARCH OFFICE

**74-1. MISSION.** The Operations Research Office is the principal office within the agency for developing state-of-the-art mathematical models, computer simulation capabilities, and analytical programs to support operational requirements and NAS development.

**74-2. FUNCTIONAL ORGANIZATION.** The functional organization of the Operations Research Office is shown in figure 74-1.

**74-3. FUNCTIONS.** Within the assigned mission and in conjunction with concerned organizations, this office:

a. Designs and conducts simulation models for analyzing system limitations related to air traffic control routing, airport capacity, and energy.

b. Performs analyses of user preferred routing, system productivity, safety, and air traffic control procedures.

c. Conceives and constructs mathematical and other analytical models to explore and validate concepts and techniques pertaining to the operational environments of airspace. These analyses, which also include nonreal-time simulation, as appropriate, provide insight and quantitative data relevant to system factors such as safety, capacity, and workload.

d. Develops and/or translates advanced system concepts into logical software models which are analyzed and validated through the use of computer simulation techniques.

e. Applies the tools of modern operations research to systemwide analysis of the National Airspace System (NAS) to evaluate quantitatively the merits of proposed capacity enhancements to the NAS and to demonstrate the effect of local and regional airspace and airport limitations on the NAS.

f. Withdrawn - CHG 5.

g. Conducts risk modeling associated with new airspace procedures and associated avionics systems, including reduced horizontal and vertical separation, close-spaced parallel approaches, airborne collision avoidance systems, and terminal airspace operations.

**74-4. RESERVED.**

**74-5. SPECIAL RELATIONS.** The Operations Research Office:

a. Validates model requirements and assumptions in coordination with Associate Administrators for AAT, AND, AAF, ARP, AVS, and API as appropriate.

b. Coordinates analysis and develops recommendations for system changes in coordination with Associate

Administrators for AAT, AND, AAF, ARP, AVS, as appropriate.

c. Acquires model data inputs from cognizant associate administrators, industry, and other Government organizations.

d. Plans and coordinates model activities with local and regional civil aviation authorities and industry, e.g., airlines, AOCI, ATA, et al.

**74-6. OFFICE OF THE DIRECTOR.** Under the executive direction of the Associate Administrator for Advanced Design and Management Control, the office of the director:

a. Advises and assists the Administrator and the Executive Director for System Development in providing support in the justification of budget estimates, in the administration of executive decisions, and in the development and maintenance of productive relationships with the public, the aviation community, and other Government agencies.

b. On matters within the purview of the service, provides for the development and coordination and is accountable to the Administrator for the adequacy of agency:

(1) Policies, standards, systems, and procedures.

(2) Public rules, regulations, orders, and standards.

(3) Program plans issued by, or on behalf of, the Administrator.

c. Provides leadership and direction in the planning, management, and control of service activities.

d. Prepares service position, provides service representation in planning, and coordinates the service program for FAA emergency operations.

**74-7. to 74-9. RESERVED.**

**74-10. AIRSPACE SYSTEMS ANALYSIS DIVISION.** The Airspace Systems Analysis Division is responsible for the development and application of operations research tools, computer modeling, and analysis for the development, design, and management of the national airspace. The computer models and simulation capabilities will enable ADM to examine and identify the limiting factors in NAS performance on a systemwide basis, develop recommendations for changes with the cognizant organizations, and to determine the impacts of changes on the NAS to counter the limiting factors. These capabilities will also permit the examination of the effectiveness of

current NAS configurations, the effects of future traffic growth on the NAS, and the impact of modifications and new strategies to these configurations. The division:

a. Develops, evaluates, and applies computer simulation and analytical models to help identify limitations in NAS performance and the impact on performance of proposed changes to the NAS.

b. Performs analyses of the impacts of user preferred routings, flow control strategies, system productivity, air traffic control procedures, automation, avionics, weather, airport configuration, and equipment and facility outages on system performance.

c. Develops and applies models to determine the feasibility and benefits of advanced system concepts and associated technology. Recommends favorable advanced system concepts for further research and development.

d. Develops and/or translates advanced system concepts into software models that are analyzed and validated through the use of computer simulation techniques.

e. Conducts analyses of existing air traffic system, sub-system performance measures, criteria, and standards and determines requirements for needed changes. Applies these to present and forecasted traffic to determine where, when, and to what degree system improvements are required in domestic and international airspace.

f. Conceives and constructs mathematical and other analytical models to explore and validate concepts and techniques pertaining to the operational environments of airspace. These analyses, that include simulation, provide insight and quantitative data relevant to system factors such as safety, capacity, and productivity.

g. Validates modeling requirements and system integration analyses to support technical program direction and long-range planning.

h. Provides expert advisory services within the FAA and represents the agency at conferences and meetings with members of other Government agencies and private industry relating to the division's functions.

i. Plans and conducts field data collection, validation, and demonstrations of new and existing models.

j. Applies the tools of modern operations research to systemwide analysis of the NAS to evaluate quantitatively the merits of proposed capacity enhancements to the NAS and to validate local and regional airspace/airport improvement.

k. Validates current and future airspace separation standards and procedures for continental United States and international airspace operations.

l. Evaluates new research and development programs to determine the potential effect on overall system performance.

m. Serves as the primary technical resource to support the FAA/industry task force committees regarding computer modeling capabilities, e.g., capacity and delay.

n. Participates on the service model review board to validate new requirements, apply new technology, coordinate/correlate model development, and to interface with industry and users.

**74-11. AIRPORT ANALYSIS DIVISION.** The Airport Analysis Division is responsible for the development and application of operations research tools, computer modeling, and analysis for the improvement of the airport environment. The division is also responsible for the development of aviation-related energy conservation programs and for providing direction and management support for energy and fuel conservation program. The division:

a. Develops, evaluates, and applies computer simulation models to identify need for improvements to airports and the airport environment. Identifies impacts to the airport capacity and operation.

b. Performs analyses of terminal air traffic control strategies and procedures, automation, weather, airport configuration, and facility outages on airport capacity and utilization.

c. Develops and applies models to determine feasibility and benefits of airport concepts and associated technology.

d. Develops and/or translates advanced system concepts into software models that are analyzed and validated through the use of computer simulation techniques.

e. Withdrawn - CHG 5.

f. Withdrawn - CHG 5.

g. Validates airport and aircraft operations modeling requirements and system integration analyses to support technical program direction and long-range planning.

h. Provides expert advisory services and agency representation at conferences and meetings with members of other Government agencies and private industry relating to the division's functions.

i. Plans and conducts field validation and demonstrations of new and existing airport models.

j. Applies the tools of modern operations research to analyze airport systems of the NAS and quantitatively evaluate the merits of proposed airport aircapacity

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enhancements to the NAS and to validate local and regional airspace/airport improvement.

k. Evaluates new research and development programs in airport areas to determine the potential effect on overall airport system performance.

l. Participates on the service model review board to validate new requirements, apply new technology, coordinate/correlate model development, and to interface with industry and users.

